

**Patent Claims**

1. A cable bushing for a probe having
  - a cable (3),
  - a housing (1),
    - through which the cable (3) is led, and
    - which has, at a first end, a step which extends radially inward,
  - a first sleeve (11),
    - which engages around the cable (3) and
    - which has a first section (13) arranged inside the housing (1),
    - the first sleeve (11) being held in the housing by the step,
  - 10       -- the first sleeve (11) bearing against the cable (3) in a seal-forming fashion, and
    - a sealing means being provided between the step in the housing (1) and the first sleeve (11),
  - 15       - a second sleeve (17),
    - which is arranged inside the housing (1),
    - which has a first cylindrical section (19) which engages closely around the cable (3),
    - which has a second section (21) which adjoins an end of the first section (19) which faces the step,
    - 20       --- which bears on the first section (13) of the first sleeve (11), and
  - an attachment element,
  - 25       -- by means of which the second sleeve (17) is pressed against the first sleeve (11).

  

2. The cable bushing as claimed in claim 1, in which the attachment element is a ring nut (23) which is screwed into the housing (1) in the direction facing the step.

3. The cable bushing as claimed in claim 1, in which the second sleeve (17) is metallic and is pressed with the cable (3) in order to provide strain relief to the cable (3).  
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4. The cable bushing as claimed in claim 1, in which
  - the cable (3) is surrounded on the outside by a metallic shield (5),
  - the second sleeve (17) is metallic, and
  - 10 - the second sleeve (17) forms an electrically conductive connection between the housing (1) and the metallic shield (5).
5. The cable bushing as claimed in claim 1, in which  
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  - the first sleeve (11) is composed of a plastic,
  - the cable (3) has a coating (7) made of a plastic, and
  - the first sleeve (11) is welded to the coating (7).
- 20 6. The cable bushing as claimed in claim 1, in which
  - the step in the housing (1) is a radially inwardly extending shoulder (9), and
  - the sealing means is a seal (15) which bears on  
25 the shoulder (9),
    - which is clamped in between the shoulder (9) and the first section (13) of the first sleeve (11).
- 30 7. The cable bushing as claimed in claim 1, in which,
  - the step in the housing (1) is a radially inwardly extending shoulder (9), and
  - the sealing means is provided by means of an inner edge (25) of the shoulder (9) onto which  
35 the first section (13) of the first sleeve (11) is pressed by means of the attachment element.

8. The cable bushing as claimed in claim 1, in which a spring (27) is clamped in by means of the attachment element and exerts on the first sleeve (11) a force in the direction facing the step.

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9. The cable bushing as claimed in claim 8, in which the spring bears on an annular plate (47) which bears on the first sleeve (11).

10 10. The cable bushing as claimed in claim 1, in which  
- the step in the housing (1) has a conical inner  
casing surface (29) whose diameter decreases in  
the direction of the first end of the housing  
(1),

15 - the first sleeve (11) is composed of an  
elastomer,  
- the first section (13) of the first sleeve has  
a conical region (31), and  
- the first sleeve (11) is pressed against the  
20 step in the housing (1) by the attachment  
element in such a way that the conical region  
(31) of the first sleeve (11) presses against  
the conical casing surface (29) of the housing  
(1) and the first sleeve (11) bears in a seal-  
25 forming fashion against the housing (1) and the  
cable (3).

11. The cable bushing as claimed in claim 1, in which  
- the housing (1) has a first part (33) which  
30 surrounds the first end, and a second part  
(35),  
- the second part (35) is screwed onto the first  
part (33) in the direction facing the step,  
- the attachment element is a radially inwardly  
35 extending step (49) arranged in the interior of  
the second part (35),  
-- which bears on the second sleeve (17) and

-- which presses the second sleeve (17) in the direction facing the step as a result of the second part (35) being screwed on.